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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/930,827
Filing Date: August 15, 2001
Appellant(s): SCHMIDT, DOMINIK J.

Airlfly Communications Inc.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed on 5/18/09 appealing from the Office action mailed on 10/1/08.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 1-4, 7, 15-19, 21 and 23-32.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

7,242,938	Kobylinski	10-2007
5,752,193	Scholefield	5-1998
5,752,193	Gorsuch	2-2003
6,742,052	Himmel	5-2004
2002/0028655	Rosener	3-2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 1-4, 7, 15 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over, Kobylinski et al. (US 7242938), hereinafter referred to as Kobylinski, in view of Scholefiled et al. (US 5752193), hereinafter referred to as Scholefiled, and Gorsuch (US 6526034) and Himmel (US 6742052).

Regarding Claim 1, Kobylinski discloses a mobile device **(fig 1A, 14, notice the mobile station performs the function)** sniffing for available cellular frequency channels of the plurality of cellular channels in a mobile station **(fig 1a 14 and 16,**

where sniffing as defined by the specification involves an RSSI detection for the determination of favorable/available channels, see Col 3 steps 2, 3 and 4).

Kobylinski does not specifically disclose the mobile station requesting, from a base station an allocation of cellular frequency channels from the available frequency channels, responsive to the requesting, the mobile device receiving an allocation of available cellular frequency channels at the mobile station, bonding a short range radio channel with the allocated cellular frequency channels, thus increasing available bandwidth for data communication between the mobile station and the base station and transmitting data in parallel to the base station over the bonded short range radio channel and the allocated cellular frequency channels.

Scholefield discloses the mobile device requesting an allocation of cellular frequency channels from the mobile station in response to the request from the mobile station **(fig 6 depicts a mobile sending a request and receiving a response).**

Scholefield discloses responsive to the requesting, the mobile device receiving an allocation of available cellular frequency channels **(fig 6 depicts an allocation step in response to the request being made by the mobile station).**

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the method of Koylinski as taught by Scholefiled, since stated in Col 3 lines 55-58 that such a modification will conserve on bandwidth.

The combined teachings of Kobylinski and Scholefield do not specifically disclose bonding a short range radio channel with the allocated cellular frequency channels, thus increasing available bandwidth for data communication between the mobile station and

the base station and transmitting data to the base station in parallel over the bonded short range radio channel and the allocated cellular frequency channels.

Gorsuch discloses bonding a short range radio channel with the allocated cellular frequency channels **(see fig 6, where the short range 802.11 and cellular CDMA components are combined for transceiving, where the output is thus a combined/bonded channel),** thus increasing available bandwidth for data communication between the mobile station **(fig 5, 617 and 615, notice that both elements are wirelessly connected to base stations 611 A and 605)** and the base station **(Col 9 lines 65-67, BW management function allocates more BW).**

and transmitting data to the base station over the bonded short range radio channel and the allocated cellular frequency channels **(fig 5 depicts a mobile such as 615 and 617 communicating with base station 605 or 611).**

It would have been obvious to one of the ordinary skill in the art at the time of the invention was disclosed to modify the combined teachings of Kobylinski and Scholefield, as taught by Gorsuch, since stated in Col 4 lines 12-21, that such a modification will provide bandwidth as necessary at critical times.

The combined teachings of Kobylinski and Scholefield and Gorsuch do not specifically disclose in parallel.

Himmel discloses in parallel **(Fig 8B, 183 shows plural communication channels, and Col 8 lines 32-44 shows that the channels are parallel simultaneously transmitted channels having different frequencies).**

It would have been obvious to one of the ordinary skill in the art at the time of the invention was disclosed to modify the combined teachings of Kobylinski and Scholefield and Gorsuch, as disclosed by Himmel, since stated in Col 2 lines 28-30, that such a modification would allow for greater capacity.

Regarding claim 2, The combined teachings of Kobylinski and Scholefield do not specifically disclose wherein said transmitting includes the mobile device transmitting at a given point in time, a first portion of data on the allocated cellular frequency channels and a second portion of the data on a short range radio channel.

Gorsuch discloses wherein said transmitting includes the mobile device transmitting at a given point in time **(the examiner notes that any point in time is a given point in time)**, a first portion of data on the allocated cellular frequency channels and a second portion of the data on a short range radio channel **(Col 9 lines 16-24, where the data can be transmitted using the short range transceiver, and when the short range is no longer available, data is transmitted using the long range, thus data is transmitted in portions using different transceivers).**

It would have been obvious to one of the ordinary skill in the art at the time of the invention was disclosed to modify the combined teachings of Kobylinski and Scholefield, as taught by Gorsuch, since stated in Col 4 lines 12-21, that such a modification will provide bandwidth as necessary at critical times.

Regarding claim 3, The combined teachings of Kobylinski and Scholefield do not specifically disclose wherein the short range radio channel is Bluetooth or WLAN.

Gorsuch discloses wherein the short range radio channel is Bluetooth or WLAN (fig 6, 201 and 207 WLAN circuits).

It would have been obvious to one of the ordinary skill in the art at the time of the invention was disclosed to modify the combined teachings of Kobylinski and Scholefield, as taught by Gorsuch, since stated in Col 4 lines 12-21, that such a modification will provide bandwidth as necessary at critical times.

Regarding claim 4, The combined teachings of Kobylinski and Scholefield do not specifically disclose the mobile device dynamically discovering a plurality of available radio channel including the short range radio channel.

Gorsuch discloses the mobile device dynamically discovering a plurality of available radio channel including the short range radio channel **(Col 9 lines 10-16, where the terminal actively/dynamically receives the response to the request, where this response indicates that the WLAN is within range and thus the channel/s are available for communication).**

It would have been obvious to one of the ordinary skill in the art at the time of the invention was disclosed to modify the combined teachings of Kobylinski and Scholefield, as taught by Gorsuch, since stated in Col 4 lines 12-21, that such a modification will provide bandwidth as necessary at critical times.

Regarding Claim 7, The combined teachings of Kobylinski and Scholefield discloses sniffing for available frequency channels as disclosed in the rejection of claim 1, where it would have been obvious to one of the ordinary skill in the art at the time of the invention that some form of circuitry is necessary to perform such a function, and

furthermore, more than one sniffing circuit may be used to accomplish the sniffing task, and this combination of circuits is deemed as a parallel combination.

Regarding Claim 15, Kobylinski discloses transmitting cellular packet data conforming to one of the following protocols: cellular digital packet data, GPRS and EDGE **(see background, AMPS and GSM).**

Regarding Claim 24, Kobylinski does not specifically disclose the mobile station receiving from a user of the mobile device a request for a bandwidth sufficient to communicate at least one file.

Scholefield discloses receiving from a user of the mobile station a request for a bandwidth sufficient to communicate at least one file **(Col 4 lines 8-20, where the access request requests a certain number of channels depending on the size of data to be transmitted, where the data to be transmitted is equivalent to a file).**

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the invention of Kobylinski so as to request a specific amount of bandwidth for communication as disclosed by Scholefiled. The motivation for this combination is to conserve on bandwidth (Col 3 lines 55-58).

Regarding Claim 25, Kobylinski does not specifically disclose the mobile station determining a number of channels for the allocation request based on the size of the at least one file

Scholefield discloses the mobile station determining a number of channels for the allocation request based on the size of the at least one file **(Col 4 lines 8-13, determining how many channels based on size of data).**

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the mobile station as disclosed by Kobylinski to make the determination of the number of channels to request as disclosed by Scholefiled. The motivation for this modification is to conserve on bandwidth (Col 3 lines 55-58).

Regarding claim 26, The combined teachings of Kobylinski and Scholefield do not specifically disclose wherein said binding is performed responsive to a request from a user of the mobile device

Gorsuch discloses wherein said binding is performed responsive to a request from a user of the mobile device **(Col 9 lines 10-16, where the probe request is sent by the mobile, and when it is determined that no response has been received, long range is combined/bonded).**

It would have been obvious to one of the ordinary skill in the art at the time of the invention was disclosed to modify the combined teachings of Kobylinski and Scholefield, as taught by Gorsuch, since stated in Col 4 lines 12-21, that such a modification will provide bandwidth as necessary at critical times.

Regarding Claim 27, Kobylinski does not specifically disclose requesting the allocation of cellular frequency channels comprising requesting an allocation of preferably adjacent cellular frequency channels (portable terminal demands the master microprocessor for available radio channels.

Scholefiled discloses requesting the allocation of cellular frequency channels comprising requesting an allocation of preferably adjacent cellular frequency channels **(portable terminal demands the master microprocessor for available radio**

channels and Col 4 lines 15-25, where the mobile station sends a request to all three time slots 1-3, where in fig 2, time slots 1-3 are clearly adjacent).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the invention of Koblinski so as to perform a request and confirmation procedure as disclosed by Scholefiled. The motivation for this modification is to enable the transmission of data over a channel. The motivation for this combination is to conserve on bandwidth (Col 3 lines 55-58).

2. Claims 16, 17, 19, 23 and 30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scholefield et al. (US 5752193) in view of Gorsuch (US 6526034) in view of Himmel (US 6742052)

Regarding Claim 16, Scholefield discloses at least one of the processing units **(see fig 1, 106 for processor)** calculating a number of cellular frequency channels to request from a base station **(see fig 6 for requesting by mobile station to a base station)** for transmission of a file from the mobile device, wherein the number of requested cellular frequency channels corresponds to a size of the file **(Col 4 lines 8-13, determining how many channels based on size of data).**

Scholefield discloses a radio frequency sniffer coupled to the at least one of the transceivers **(fig 1 shows a processor, antenna and transceiver. Furthermore, Col 4 lines 42-44 discloses the mobile station in fig 1 using a scanning procedure, equivalent to sniffing, where the function requires some means inherently disclosed within the mobile station).**

Scholefield does not specifically disclose a long range transceiver unit communicating over a plurality of cellular frequency channels and a short range transceiver coupled to the processing units and configured to communicate over a short range radio channel, wherein the sniffer is configured to provide signals used to dynamically discover available radio channels including the short range radio channel, a circuit configured to bond the short range radio channel with one or more of the plurality of cellular frequency channels, thus increasing a bandwidth of data communication between the mobile device and the base station, wherein the long range transceiver and the short range communication are configured to transmit respective portions of the file to the base station in parallel over the bonded short range radio channel and one or more of the plurality of cellular frequency channels allocated by the base station.

Gorsuch discloses a long range transceiver unit **(fig 6, 140)** communicating over a plurality of cellular frequency channels **(fig 2 shows a plurality of cellular channels)** and a short range transceiver **(fig 6, 240)** coupled to the processing units and configured to communicate over a short range radio channel,

wherein the sniffer is configured to provide signals used to dynamically discover available radio channels including the short range radio channel **(Col 9 lines 10-15, where the signals/requests are sent actively/dynamically, in order to determine the availability of the short range channel/s),**

a circuit **(fig 6, 211b, where the short range and long range are combined/bonded)** configured to bond the short range radio channel with one or more of the plurality of cellular frequency channels, thus increasing a bandwidth of data

communication between the mobile device and the base station **(Col 9 lines 65-67, BW management function allocates more BW)**,

wherein the long range transceiver and the short range communication are configured to transmit respective portions of the file to the base station over the bonded short range radio channel and one or more of the plurality of cellular frequency channels allocated by the base station **(Col 9 lines 16-24, where the data can be transmitted using the short range transceiver, and when the short range is no longer available, data is transmitted using the long range, thus data is transmitted in portion using different transceivers).**

It would have been obvious to one of the ordinary skill in the art at the time of the invention was disclosed to modify the method of Scholefield, as taught by Gorsuch, since stated in Col 4 lines 12-21, that such a modification will provide bandwidth as necessary at critical times.

The combined teachings of Scholefield and Gorsuch do not specifically disclose in parallel.

Himmel discloses in parallel **(Fig 8B, 183 shows plural communication channels, and Col 8 lines 32-44 shows that the channels are parallel simultaneously transmitted channels having different frequencies).**

It would have been obvious to one of the ordinary skill in the art at the time of the invention was disclosed to modify the combined teachings of Scholefield and Gorsuch, as disclosed by Himmel, since stated in Col 2 lines 28-30, that such a modification would allow for greater capacity.

Regarding Claim 17, Scholefield discloses the reconfigurable processor core including a plurality of digital signal processors **(Col 7 lines 30-41, DSP's).**

Regarding Claim 19, Scholefield does not specifically disclose router coupled to the one or more processing units.

Gorsuch discloses a switch/router coupled to the one or more processing units (to switch from direct RF interface to the use of Bluetooth interface ,fig 6, 211).

It would have been obvious to one of the ordinary skill in the art at the time of the invention was disclosed to modify the method of Scholefield, as taught by Gorsuch, since stated in Col 4 lines 12-21, that such a modification will provide bandwidth as necessary at critical times.

Regarding Claim 23, Scholefield discloses the reconfigurable processor core being configured to determine a number of channels to be used for the data communication based upon a user request for the data communication **(Col 4 lines 8-13, determining how many channels based on size of data).**

Regarding claim 30, Scholefield discloses first means for requesting, from a base station, an allocation of available cellular frequency channels **(Col 4 lines 8-20, requesting being made on each channel).**

Scholefield does not specifically disclose second means for binding a short range radio channel with allocated cellular frequency channel to increase available bandwidth for data communication between the mobile communication device and the base station and third means for transmitting data to the base station in parallel over the bonded short range radio channel and the allocated cellular frequency channels.

Gorsuch discloses second means for bonding a short range radio channel with allocated cellular frequency channel **(fig 6, where the switch 211 bonds both the long and short range devices and channels)** to increase available bandwidth for data communication between the mobile communication device and the base station **(Col 9 lines 65-67, BW management function allocates more BW)**

and third means for transmitting data to the base station over the bonded short range radio channel and the allocated cellular frequency channels **(antenna 150 in fig 6 is equivalent to a 3rd means for transmitting the bonded short and long range data to the base stations).**

It would have been obvious to one of the ordinary skill in the art at the time of the invention was disclosed to modify the method of Scholefield, as taught by Gorsuch, since stated in Col 4 lines 12-21, that such a modification will provide bandwidth as necessary at critical times.

The combined teachings of Scholefield and Gorsuch do not specifically disclose in parallel.

Himmel discloses in parallel **(Fig 8B, 183 shows plural communication channels, and Col 8 lines 32-44 shows that the channels are parallel simultaneously transmitted channels having different frequencies).**

It would have been obvious to one of the ordinary skill in the art at the time of the invention was disclosed to modify the combined teachings of Scholefield and Gorsuch, as disclosed by Himmel, since stated in Col 2 lines 28-30, that such a modification would allow for greater capacity.

Regarding claim 32, The combined teachings of Scholefield and Gorsuch do not specifically disclose wherein said third means is configured to transmit, in parallel, data from the mobile communication device to the base station using the one or more bonded short range radio channels and the one of more allocated cellular frequency channels.

Himmel discloses wherein said third means is configured to transmit, in parallel **(fig 8D, 183 shows parallel transmission)**, data from the mobile communication device **(fig 8D see physical device)** to the base station **(fig 8B, where 128 is equivalent to base station)** using the one or more bonded short range radio channels and the one of more allocated cellular frequency channels **(Col 8 lines 32-44, where the communication between the peripheral device and computer is via parallel channels, where these channels are of different frequencies, where a first group of channels may be of a first frequency equivalent to a bonded short range channel, and a second group of channels maybe of a different frequency equivalent to cellular frequency channels, where Himmel supports any means for establishing wireless connections according to Col 11 lines 51-62).**

It would have been obvious to one of the ordinary skill in the art at the time of the invention was disclosed to modify the combined teachings of Scholefield and Gorsuch, as disclosed by Himmel, since stated in Col 2 lines 28-30, that such a modification would allow for greater capacity.

3. Claims 18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scholefield et al. (US 5752193) in view of Gorsuch (US 6526034) in view of Himmel (US 6742052) as applied to the rejected claims above, and further in view of Rosener et al. (US 2002/002865)

Claim 18 The combined teachings of Scholefield and Gorsuch do not specifically disclose the reconfigurable processor core including one or more reduced instruction set computer processors.

Rosener discloses the reconfigurable processor core including one or more reduced instruction set computer processors **(claim 17 and fig 9).**

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the combined teachings of Scholefield and Gorsuch as taught by Rosener, since stated in Para 0060, that such a modification will allow the phone to access a Bluetooth network and another long range network associated with the base station.

Claim 21 Scholefield discloses an integrated circuit **(Col 7 lines 30-40).**

The combined teachings of Scholefield and Gorsuch do not specifically disclose the reconfigurable processor core comprising an integrated circuit formed on a single substrate including the one or more processing units, the long range transceiver, and the short range transceiver

Rosener discloses the reconfigurable processor core comprising an integrated circuit formed on a single substrate including the one or more processing units, the long range transceiver, and the short range transceiver (see figs 9 A and B).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the combined teachings of Scholefield and Gorsuch as taught by Rosener, since stated in Para 0060, that such a modification will allow the phone to access a Bluetooth network and another long range network associated with the base station.

4. Claims 28 and 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over, Kobylinski et al. (US 7242938), hereinafter referred to as Kobylinski, in view of Gorsuch (US 6526034) in view of Himmel (US 6742052).

Regarding claim 28, Kobylinski discloses a radio frequency sniffer unit configured to detect available cellular frequency channels and short-range radio channels**(fig 1a 14 and 16, where sniffing as defined by the specification involves an RSSI detection for the determination of favorable/available channels, see Col 3 steps 2, 3 and 4).**

Kobylinski does not specifically disclose a processing unit configured to request, from a base station, an allocation of one or more of the available cellular frequency channels; a long-range transceiver and a short-range transceiver both coupled to the processing unit and configured to communicate over the cellular frequency channels and the short-range radio channels, respectively; and a circuit coupled to the long-range transceiver and the short-range transceiver and configured to bond one or more available short-range radio channels with one or more allocated cellular frequency channels, thus increasing a bandwidth of data communication between the mobile communication device and the base station; wherein the long-range transceiver and a

short-range transceiver are further configured to transmit data to the base station over the one or more bonded short-range radio channels and the one or more allocated cellular frequency channels.

Gorsuch discloses a processing unit configured to request, from a base station, an allocation of one or more of the available cellular frequency channels **(Col 9 lines 10-15, probe request).**

a long range transceiver unit **(fig 6, 140)** communicating over a plurality of cellular frequency channels **(fig 2 shows a plurality of cellular channels)** and a short range transceiver **(fig 6, 240)** coupled to the processing units and configured to communicate over a short range radio channel,

a circuit **(fig 6, 211b, where the short range and long range are combined/bonded)** configured to bond the short range radio channel with one or more of the plurality of cellular frequency channels, thus increasing a bandwidth of data communication between the mobile device and the base station **(Col 9 lines 65-67, BW management function allocates more BW)**,

wherein the long range transceiver and the short range communication are configured to transmit respective portions of the file to the base station over the bonded short range radio channel and one or more of the plurality of cellular frequency channels allocated by the base station **(Col 9 lines 16-24, where the data can be transmitted using the short range transceiver, and when the short range is no longer available, data is transmitted using the long range, thus data is transmitted in portion using different transceivers).**

It would have been obvious to one of the ordinary skill in the art at the time of the invention was disclosed to modify the method of Kobylinski, as taught by Gorsuch, since stated in Col 4 lines 12-21, that such a modification will provide bandwidth as necessary at critical times.

The combined teachings of Kobylinski and Gorsuch do not specifically disclose in parallel.

Himmel discloses in parallel **(Fig 8B, 183 shows plural communication channels, and Col 8 lines 32-44 shows that the channels are parallel simultaneously transmitted channels having different frequencies).**

It would have been obvious to one of the ordinary skill in the art at the time of the invention was disclosed to modify the combined teachings of Kobylinski and Gorsuch, as disclosed by Himmel, since stated in Col 2 lines 28-30, that such a modification would allow for greater capacity.

Regarding claim 29, The combined teachings of Kobylinski and Gorsuch and Himmel do not specifically disclose wherein the long range transceiver and a short range transceiver are further configured to concurrently transmit data to the base station over both the one or more bonded short range radio channels and the one or more allocated cellular frequency channels.

Himmel discloses wherein the long range transceiver and a short range transceiver **(Col 8 lines 35-38, where up to 8 different transceivers are used, each broadcasting on a different frequency, where the frequencies determine long range or short range)** are further configured to concurrently transmit data **(Col 8 lines**

40-42, where data is transmitted simultaneously) to the base station over both the one or more bonded short range radio channels and the one or more allocated cellular frequency channels **(fig 8B, 183 shows plural channels communicating data from a wireless device 134 to a base station 128).**

5. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scholefield et al. (US 5752193) in view of Gorsuch (US 6526034) in view of Himmel (US 6742052) as applied to rejected claims above, and further in view of Kobylinski (US 7242938)

Regarding claim 31, The combined teachings of Scholefield and Gorsuch and Himmel do not specifically disclose fourth means for sniffing for available cellular frequency channels.

Kobylinski discloses fourth means for sniffing for available cellular frequency channels **(fig 1a 14 and 16, where sniffing as defined by the specification involves an RSSI detection for the determination of favorable/available channels, see Col 3 steps 2, 3 and 4).**

It would have been obvious to one of the ordinary skill in the art at the time of the invention was disclosed to modify the combined teachings of Scholefiled and Gorsuch and Himmel, as taught by Kobylinski, since stated in the abstract that such a modification will improve the use of received signal strength measurements.

(10) Response to Argument

The applicant's arguments have been fully considered but they are not persuasive.

Regarding claims 1, 16, 28 and 30, The appellant argued on page 19 lines 1-6 of the brief that Gorsuch uses only one transceiver or the other, and not both at any given time, and that the CDMA pathway and WLAN pathway are mutually exclusive, therefore Gorsuch does not teach “bonding" as claimed.

In response to applicant's argument that Gorsuch fails to show using both transceivers at a given time, it is noted that the features upon which applicant relies (i.e., appellant appears to equate “bonding” to using two transceivers at any given time) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. Furthermore, on page 17 lines 15-18 of the specification shows the best definition of bonding, as the router sends packets in parallel through the separate pathways of cellular or Bluetooth or WLAN. **In light of the specification, transmission in parallel does not require transmission at the same time or at a given point in time, however requires transmission on two separate channels (i.e. in parallel)**. Gorsuch shows two separate transceivers (see figure 6, CDMA transceiver 140 and 802.11 transceiver 240) for communicating with a CDMA base station (see figure 5, 605 shows base station, where a first communication channel is created by the connection between the CDMA transceiver and the base station 605) and for also communicating with a LAN hub (figure 5, 611A and 611B, where a second communication channel is formed

between the 802.11 transceiver in figure 6 and the WLAN hub 611A or 611B). Therefore, based on the description above of Gorsuch, the mobile device (figure 5, 615 or 617 or mobile device shown in fig 6) can communicate via a CDMA base station (figure 5, 605, shows BS) or a LAN hub (figure 5, 611A or 611B), where the capability of the mobile to communicate via both CDMA and 802.11 (LAN) is equivalent to bonding.

The appellant also argued on page 19 lines 15-18 of the brief, that Himmel does not teach or suggest bonding disparate types of channels much less cellular frequency and short range radio channels. However, the examiner notes that Himmel is very clear in showing that the channels which data are transmitted on are disparate, as each of the 8 channels shown require the implementation of a separate transceiver, and each channel is set to transmit and receive at different frequencies (see Himmel Column 8 lines 36-44). Therefore the differences in transceivers and frequencies shows that each of the 8 channels are disparate.

The appellant goes on to argue on page 19 that there is no suggestion in Himmel of the different parallel channels corresponding to different protocols. However, the claims only require a bonded short range radio channel and a cellular frequency channel, which are clearly defined above in the primary reference, Gorsuch. Furthermore, Himmel shows that the parallel channels each require a separate transceiver and separate frequencies to receive and transmit data (see Himmel Column 8 lines 36-44), where these differences are equated to different protocols and comparable to the long and short range transceivers taught in Gorsuch.

In response to applicant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, in Himmel, it is obvious to one of the ordinary skill in the art at the time of the invention that the system of Gorsuch that transmits over either a CDMA pathway or a LAN pathway via a CDMA transceiver and a 802.11 transceiver, requires more than one channel, as shown by Himmel, each transceiver requires a separate channel. Himmel is introduced to show that the multiple transceivers require multiple channels, so regardless of whether or not the transceivers are transmitting at the same time, multiple channels exist for communicating via CDMA and 802.11 of Gorsuch, where **multiple channels implies bonding**. Himmel, Column 2 lines 27-40, shows the motivation for such a modification, as there is a need for greater capacity (bandwidth) for supporting multiple input and multiple output devices, and also providing greater compatibility so that devices can communicate with different input and output devices. Furthermore, **Himmel shows within the transition from fig 8A to fig 8B that serial transmission can be split into parallel communication.**

The appellant argued on page 21 of arguments that it is unclear why one of skill in the art would have been motivated to modify Gorsuch in view of Himmel to transmit the CDMA and WLAN channels at the same time when there is no apparent need to do so in the context of Gorsuch. In response to the appellant's arguments, the claims do not require that CDMA and WLAN channels transmit at the same time, and there is no support within the appellant's specification for such a teaching. Himmel is introduced to show channels in parallel, where each transceiver of Gorsuch requires a separate channel for communication, where the combination of these channels is referred to as bonding. Furthermore, Column 2 lines 27-40 of Himmel shows that the multiple transceivers mapped to multiple channels provides a greater capacity (bandwidth) for supporting multiple input and multiple output devices, and also provides greater compatibility so that devices can communicate with different input and output devices

Regarding claim 2, the appellant argued that Gorsuch discloses transmitting a first portion of data at one given point in time, and transmitting a second portion of data at a second given point in time, which is contrary to what is claimed, which is transmitting at a given point in time a first portion of data on the allocated cellular frequency channel and a second portion of the data on the short range radio channel.

In response to the appellant's arguments, the examiner agrees that Gorsuch teaches transmitting a first portion on a short range transceiver and when the short range is no longer available, transmitting on a long range transceiver. In light of the specification, the given point in time claimed is a timeslot such as one of the timeslots

shown in fig 1B of the appellant's drawings, where a timeslot is an interval of time from tx-ty. Thus, if a first portion and second portion are transmitted at a given timeslot (point in time), they are transmitted within the interval of time that makes up that timeslot, and therefore do not have to be transmitted at the same time, and can be transmitted serially as long as they are transmitted within the timeslot.

Therefore, based on Gorsuch, a first portion is transmitted at a first time t1, and then a second portion is transmitted at t2, and ends at t3. Therefore in light of the specification, a given point in time is the interval of time t1-t3, which is the instance of time from the beginning of the first portion transmission to the end of the second portion transmission.

The appellant also argued on page 23 lines 12-15 that claim 2 specifies that the first portion and second portion of the data be transmitted on their respective channels at the **same** given point in time. The examiner notes that claim 2 does not disclose "same". The examiners interpretation of "a given point in time" are defined in the preceding paragraph in light of the specification and exclude the word "same" from the interpretation.

Regarding claim 29, the appellant argued that Himmel's frequencies do not disclose long or short range. In response, the examiner notes that Gorsuch already shows two separate transceivers (figure 6, 140 and 240), one for long range (CDMA) and one for short range (802.11). Himmel is introduced to show that multiple transceivers having different frequencies (Himmel: Column 8 lines 36-44, where one

transceiver with a first frequency is equated to Gorsuch's CDMA transceiver and another transceiver with a second frequency is equated to Gorsuch's 802.11 short range transceiver) correspond to different channels.

The appellant goes on to argue on page 26 that there is no suggestion in Himmel of the different parallel channels corresponding to different protocols. However, the claim only requires a bonded short range radio channel and a cellular frequency channel, which are clearly defined above in Gorsuch, where a CDMA and 802.11 transceiver are shown in figure 6, which require different protocols. Furthermore, Himmel shows that the parallel channels each require a separate transceiver and separate frequencies to receive and transmit data (see Himmel Column 8 lines 36-44), where these differences used by the difference transceivers are equated to different protocols and comparable to the different transceivers shown by Gorsuch.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Christopher P Grey/

Examiner, Art Unit 2474

Conferees:

/Aung S. Moe/

Supervisory Patent Examiner, Art Unit 2474

/KWANG B. YAO/

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